

## Message Text

SECRET

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ACTION SS-25

INFO OCT-01 ISO-00 SSO-00 NSCE-00 DODE-00 CIAE-00  
INRE-00 ACDE-00 DOEE-00 /026 W  
-----009630 091946Z /73  
O 091904Z JUN 78  
FM USMISSION GENEVA  
TO SECSTATE WASHDC IMMEDIATE 0686  
INFO AMEMBASSY LONDON PRIORITY  
AMEMBASSY MOSCOW PRIORITY

S E C R E T SECTION 01 OF 02 GENEVA 08824

EXDIS USCTB

PASS TO DOE

E.O. 11652: XGDS-3  
TAGS: PARM US UK UR  
SUBJECT: CTB NEGOTIATIONS: NSS WORKING GROUP MEETING,  
JUNE 8, 1978

CTB MESSAGE NO.235

1. SUMMARY. AT JUNE 8 NSS TECHNICAL WORKING GROUP,  
TARASOV (USSR) NOTED "FUNDAMENTAL IMPORTANCE" OF US AND  
UK PROPOSAL ON TREATY DURATION, STRESSING THAT IT WOULD  
NECESSITATE RE-EXAMINATION OF PREVIOUS VERIFICATION WORK  
FROM NEW PERSPECTIVE. NOVIKOV (USSR) EXPLAINED REASONS  
FOR SOVIET PROPOSAL TO LIMIT HIGH AND LOW FREQUENCY  
RESPONSE OF NSS SEISMOMETERS. AFTER MEETING, NOVIKOV  
PASSED OVER "NON-PAPER" FREQUENCY RESPONSE CURVES SHOWING  
TWO BANDS SHAPED SO AS TO EXCLUDE 8 SECOND NOISE PEAK  
FROM BAND PASS. END SUMMARY.

2. TARASOV OPENED MEETING BY NOTING "FUNDAMENTAL IMPOR-  
TANCE" OF NEW PROPOSALS ON TREATY DURATION PRESENTED BY  
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US AND UK AT JUNE 7 PLENARY. HE STRESSED THAT THESE  
PROPOSALS WOULD NECESSITATE LOOKING AT THE ENTIRE VERIFI-  
CATION PROBLEM FROM A NEW ANGLE, AND THAT WE WERE ENTERING  
A PERIOD OF REFLECTION AND ASSESSMENT OF WHAT HAD BEEN  
DONE SO FAR. HE THEN TURNED THE FLOOR OVER TO NOVIKOV  
TO ANSWER QUESTIONS POSED BY US DEL AT A PREVIOUS SESSION.

3. NOVIKOV SAID FIRST THAT SOVIET PROPOSALS ON FREQUENCY CHARACTERISTICS OF NSS SEISMOMETERS WERE ONLY MEANT TO DEAL WITH BOUNDARIES, AND NOT SPECIFIC RESPONSE CHARACTERISTICS OF BANDS WITHIN THESE OVERALL RANGES. WITH RESPECT TO ELIMINATION OF 10 HZ TO 20 HZ COVERAGE, HE NOTED THAT SINCE THESE HIGH FREQUENCIES WERE ATTENUATED RAPIDLY, LITTLE INFORMATION OF VALUE COULD BE RECORDED IN THIS FREQUENCY RANGE. FURTHERMORE, THESE FREQUENCIES REQUIRED A LARGE PORTION OF THE DATA FLOW, WHICH LED TO COMPLICATIONS IN DATA TRANSMISSION. ON RESTRICTING THE LONG PERIOD PART OF THE RANGE TO .025 HZ, HE SAID IT WAS WELL KNOWN THAT WAVELENGTHS OF MORE THAN TENS OF SECONDS WERE NOT REGULARLY DETECTED FROM WEAK EVENTS.

4. MARSHALL (UK) AGREED THAT HIGH FREQUENCIES WERE ATTENUATED MORE RAPIDLY WITH DISTANCE, BUT NOTED THAT SINCE LARGE PARTS OF THE SOVIET UNION WERE SHIELD REGIONS AND EXPLOSIONS WERE RICH IN HIGH FREQUENCIES, IT WAS STILL IMPORTANT TO HAVE THE CAPABILITY TO RECORD HIGH FREQUENCIES. HE ALSO AGREED THAT WEAK EXPLOSIONS DID NOT GENERATE MUCH VERY LOW FREQUENCY SEISMIC ENERGY; BUT SOME EARTHQUAKES DID.

5. IN RESPONSE TO ADDITIONAL QUESTIONS FROM FAKLEY (UK) AND TURNBULL (US), TARASOV SAID NOVIKOV WOULD DISCUSS THE SOVIET IDEAS ON FREQUENCY RESPONSE IN MORE DETAIL  
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AFTER THE SESSION.

6. TARASOV THEN ASKED FAKLEY IF THE NEW UK/US POSITION ON TREATY DURATION WOULD AFFECT EARLIER UK PROPOSALS ON THE FORM OF THEIR ASSOCIATION WITH THE SEPARATE VERIFICATION AGREEMENT. FAKLEY SAID THAT THE UK HAD NOT RE-EXAMINED THEIR POSITION IN DETAIL IN THE LIGHT OF A 5-YEAR DURATION TREATY, BUT HIS IMMEDIATE REACTION WAS THAT THERE WAS NO REASON FOR THE CHANGE IN DURATION TO AFFECT THE NATURE OF UK PARTICIPATION. TARASOV ASKED IF THIS MEANT THE UK WOULD HAVE NO NATIONAL SEISMIC STATIONS, AND FAKLEY AGREED.

7. AFTER THE MEETING, NOVIKOV, BASHILOV, MARSHALL, AND TURNBULL COVERED FURTHER QUESTIONS ON THE SOVIET'S PROPOSED TWO RESPONSE BANDS. NOVIKOV EXPLAINED THAT SOVIET DESCRIPTION OF MAY 19 ON THESE TWO BANDS HAD BEEN "UNFORTUNATE". INSTEAD OF WIDENING THE MID-PERIOD RANGE TOWARD LOW FREQUENCIES, THEY HAD MEANT THAT THE LONG-PERIOD BAND WOULD BE EXTENDED TO TEN SECONDS PERIOD AND THE SHORT PERIOD BAND WIDENED TO SEVEN SECONDS. USING THIS APPROACH, THE MICROSEISMIC PEAK AT EIGHT SECONDS

WOULD POSE NO PROBLEM. NOVIKOV THEN PASSED A SOVIET DELEGATION "NON-PAPER" SHOWING THE TWO BANDS. IN RESPONSE TO QUESTIONS BY TURNBULL, NOVIKOV SAID FALL-OFF AT HIGH FREQUENCY END WOULD DEPEND ON CULTURAL NOISE AT INDIVIDUAL SITES. THE RESPONSES, HE CONTINUED, WERE BEING USED ON EXISTING INSTRUMENTATION. ASKED FOR THE GAIN OF THESE INSTRUMENTS, NOVIKOV ONLY REPLIED THAT THIS WAS LIMITED BY THE BACKGROUND NOISE.

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INRE-00 ACDE-00 DOEE-00 /026 W  
-----009585 091946Z /73

O 091904Z JUN 78  
FM USMISSION GENEVA  
TO SECSTATE WASHDC IMMEDIATE 0687  
INFO AMEMBASSY LONDON PRIORITY  
AMEMBASSY MOSCOW PRIORITY

S E C R E T SECTION 02 OF 02 GENEVA 08824

EXDIS USCTB

PASS TO DOE

8. DESCRIPTION OF DIAGRAM AS FOLLOWS: VERTICAL AXIS -  
"RELATIVE AMPLITUDE" ON LOG SCALE; HORIZONTAL AXIS -  
"APPROXIMATE FORM OF SEISMIC STATION'S  
FREQUENCY RESPONSE" ON LOG SCALE IN HZ. LONG PERIOD  
RESPONSE (X,Y) - (0.02, 0.01), (0.03, 0.03),  
(0.04, 0.038), (0.045, 0.04), (0.06, 0.037), (0.08,  
0.027), (0.1, 0.018). SHORT PERIOD RESPONSE (X,Y) -  
(0.14, 0.01), (0.3, 0.09), (0.4, 0.22), (0.6, 0.62),  
(0.9, 0.9), (1.4, 1.0), (2.0, 1.0), (4.0, 0.9),  
(8.0, 0.6), (10.0, 0.5). JOHNSON

SECRET

NNN

## Message Attributes

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**Capture Date:** 01 jan 1994  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** LIMITED TEST BAN TREATY, NEGOTIATIONS, MEETINGS  
**Control Number:** n/a  
**Copy:** SINGLE  
**Draft Date:** 09 jun 1978  
**Decaption Date:** 20 Mar 2014  
**Decaption Note:** 25 YEAR REVIEW  
**Disposition Action:** RELEASED  
**Disposition Approved on Date:**  
**Disposition Case Number:** n/a  
**Disposition Comment:** 25 YEAR REVIEW  
**Disposition Date:** 20 Mar 2014  
**Disposition Event:**  
**Disposition History:** n/a  
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**Executive Order:** X3  
**Errors:** N/A  
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**Status:** NATIVE  
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**To:** STATE  
**Type:** TE  
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**Review Markings:**  
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